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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,181	08/27/2003	Masayuki Ohta	259052003300	6464
25226	7590	05/23/2006		
MORRISON & FOERSTER LLP 755 PAGE MILL RD PALO ALTO, CA 94304-1018			EXAMINER VAN ROY, TOD THOMAS	
			ART UNIT 2828	PAPER NUMBER

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/650,181	<b>Applicant(s)</b> OHTA ET AL.	
	<b>Examiner</b> Tod T. Van Roy <i>my/ty</i>	<b>Art Unit</b> 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,10-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

The examiner acknowledges the amending of claims 1, 10-11, and 14-15.

### ***Response to Arguments***

Applicant's arguments filed 05/01/2006 have been fully considered but they are not persuasive.

With respect to claim 5, the applicant has stated that the Goto reference does not teach (paraphrasing) a series of markers, formed at one or both of the first edges, in the resonator length direction.

The examiner does not agree. Goto teaches a series of markers (fig.6b, darkened areas), formed at one or both of the first edges (*at* does not necessarily mean *on*, but can also mean *near* [see Merriam-Webster's 10<sup>th</sup> edition, 1999], and the markers of Goto are believed to be near the first edges), and have an overall length in the resonator length direction (the markers have a length in the resonator length direction, and any length in this direction meets the claimed limitation).

*As discussed with the counsel for the applicant, it is believed that changing the word "at" to the word "on" in the 8<sup>th</sup> line of claim 5 would be sufficient to overcome the Goto reference.*

The indicated allowability of claims 1 and 11-13, are withdrawn in view of the newly discovered reference(s) to Sugano (JP 63136687 A). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugano (JP 63136687 A).

With respect to claim 1, Sugano discloses a method for manufacturing a semiconductor laser device, comprising the steps of: forming electrode patterns arranged in a plurality of rows (fig.1) extending in a first direction (top to bottom of figure) on an upper surface of a semiconductor wafer having at least a light emission layer (fig.3 #3), the electrode patterns having opposed to two edges extending in the first direction (left and right sides of dashed electrode patterns); cutting the resultant semiconductor wafer for a predetermined width to yield a plurality of semiconductor bars (abs.), and sectioning the semiconductor bars in desired sizes to form semiconductor laser devices each having a pair of cleavage surfaces (cleaved along dotted line), the

surfaces being parallel to a second direction and distant from each other by a resonator length (abs., fig.1 L's), wherein the formed electrode patterns are continuous with each other in the first direction (fig.1), each electrode pattern including a series of markers having a periodical pattern (markers are the gaps in the electrode patterns, series of markers forms periodical pattern), the markers being formed at one or both of the edges of the electrode patterns (each formed at an edge on either side of the electrode pattern), and a minimum unit of the periodical pattern has an overall length in the first direction equal to  $L/n$  and not greater than the resonator length (marker not greater than resonator length  $L$ ), wherein  $L$  is the resonator length and  $n$  is a positive real number not smaller than one, the first direction being a direction along the resonator length, the second direction being perpendicular to the first direction.

With respect to claim 11, Sugano discloses the wafer is cut in predetermined widths to yield a plurality of semiconductor bars extending in the resonator length direction, and the plurality of semiconductor bars are cut in predetermined resonator lengths (fig.1, abs.)

With respect to claim 12, Sugano discloses the ability to cut the semiconductor bars into different resonator lengths, yielding a plurality of different semiconductor laser devices (abs.).

With respect to claim 13, Sugano discloses one of the semiconductor bars is cut in integral multiple lengths of the overall length of the marker (abs.).

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Claims 5 is rejected under 35 U.S.C. 102(e) as being anticipated by Goto (US 6850547).

With respect to claim 5, Goto discloses a semiconductor laser device, comprising: a semiconductor layer portion including at least a light emission layer (fig.5 #13) and a pair of cleavage surfaces the surfaces being parallel and distant from each other by a resonator length (fig.5 facets A, B); and an electrode pattern piece formed on an upper surface of the semiconductor layer portion (fig.5 #6), the electrode pattern piece having opposed two first edges extending in a first direction (fig.5 left and right sides of the electrode) and opposed two second edges extending in a second direction along the pair of cleavage surfaces (fig.5 near facets A and B), wherein the two second edges come in contact with the pair of cleavage surfaces (fig.5 #6 in contact with facets A and B), each electrode pattern piece including a series of markers having a periodical pattern formed at one or both of the first edges (two markers, elongated sides of t shaped bar, on either side of center stripe seen in shaded area in fig.6b), a minimum unit of the periodical pattern having an overall length in the resonator length direction equal to  $L/n$  and not greater than a resonator length, wherein  $L$  is the resonator length and  $n$  is a positive number not smaller than 1 (markers not greater than resonator length), the first direction being a direction along the resonator length, wherein the markers can be used to form laser chips of different resonator lengths.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 10, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto in view of Ohbuchi (US 6611542).

With respect to claim 10, Goto teaches the semiconductor laser device as outlined in the rejection to claim 5, but does not teach the marker length to width ratio is between 1:5 to 5:1. Ohbuchi teaches a semiconductor laser device with electrode markers wherein it is taught that marker side dimensions should be 20um or greater (fig.4 E, col.8 lines 12-14). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the t pattern of Goto with the 20um sides dimensions of Ohbuchi in order to allow for ease of viewing during alignment procedures (Ohbuchi, col.8 lines 12-14, col.3 lines 39-45). (20um side dimensions applied to each exposed section of Goto's t-pattern would lead to a 60 micron chip-

width by a 40 um resonator length direction, giving a marker length to width ratio of 2:3, which falls in the 1:5 to 5:1 range)

With respect to claims 14-15, Goto teaches the semiconductor laser device as outlined in the rejection to claim 5, but does not teach the markers to be shaped like the teeth of a saw or an isosceles triangle. Ohbuchi teaches a semiconductor laser device with electrode markers wherein it is taught that markers are of an isosceles triangle, or saw tooth, shape (fig.1). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the rectangular markers of Goto with the isosceles, saw tooth, markers of Ohbuchi as a matter of engineering design choice, since the shape of the marker is not crucial, only that it has distinguishable dimensions (Ohbuchi, col.8 lines 12-14, col.3 lines 39-45).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tod T. Van Roy whose telephone number is (571)272-8447. The examiner can normally be reached on M-F.

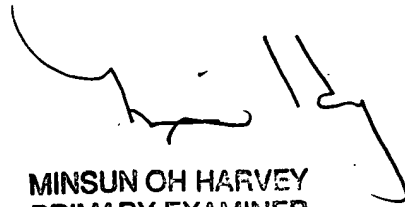
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER